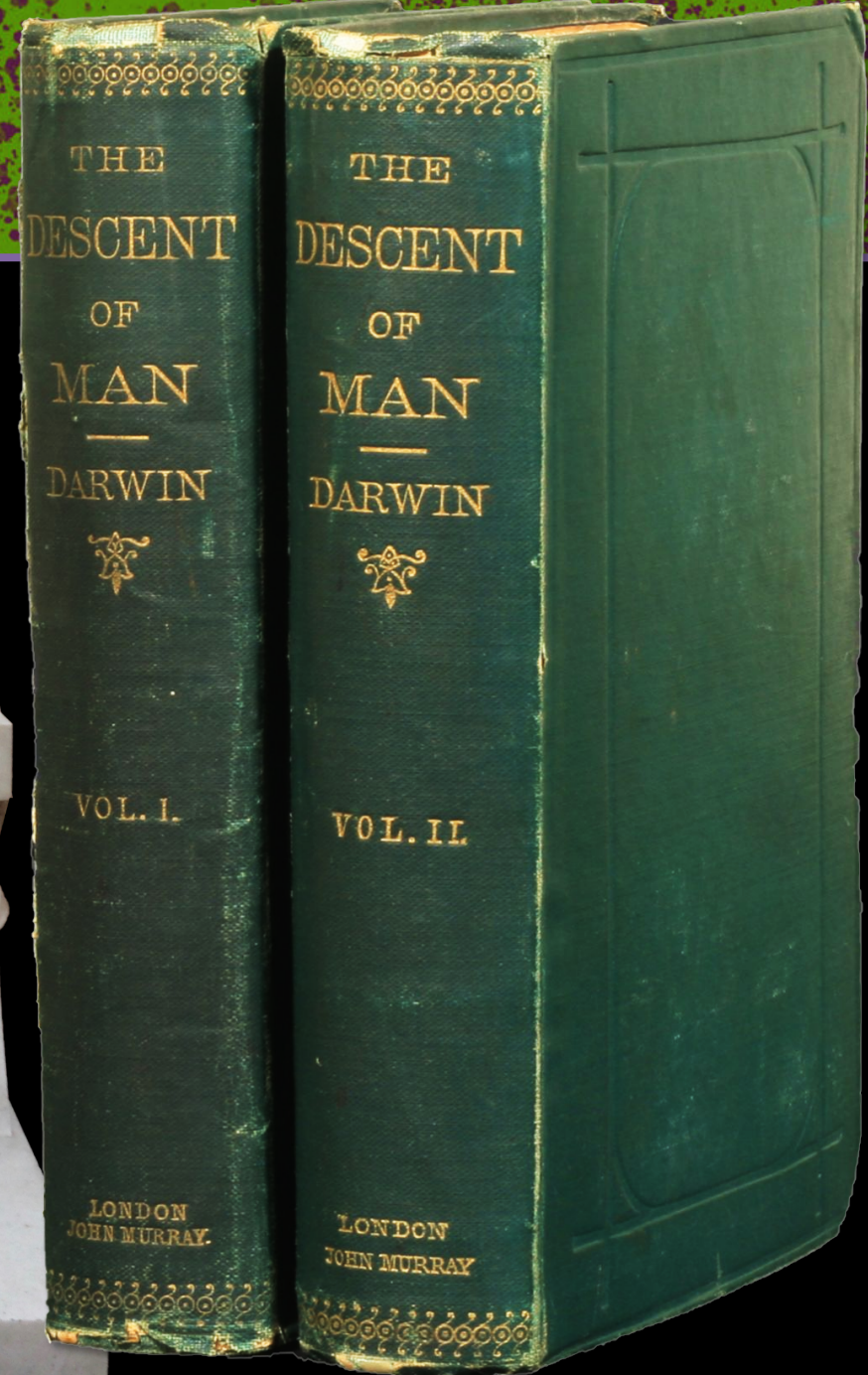


Breeding and Barnacles

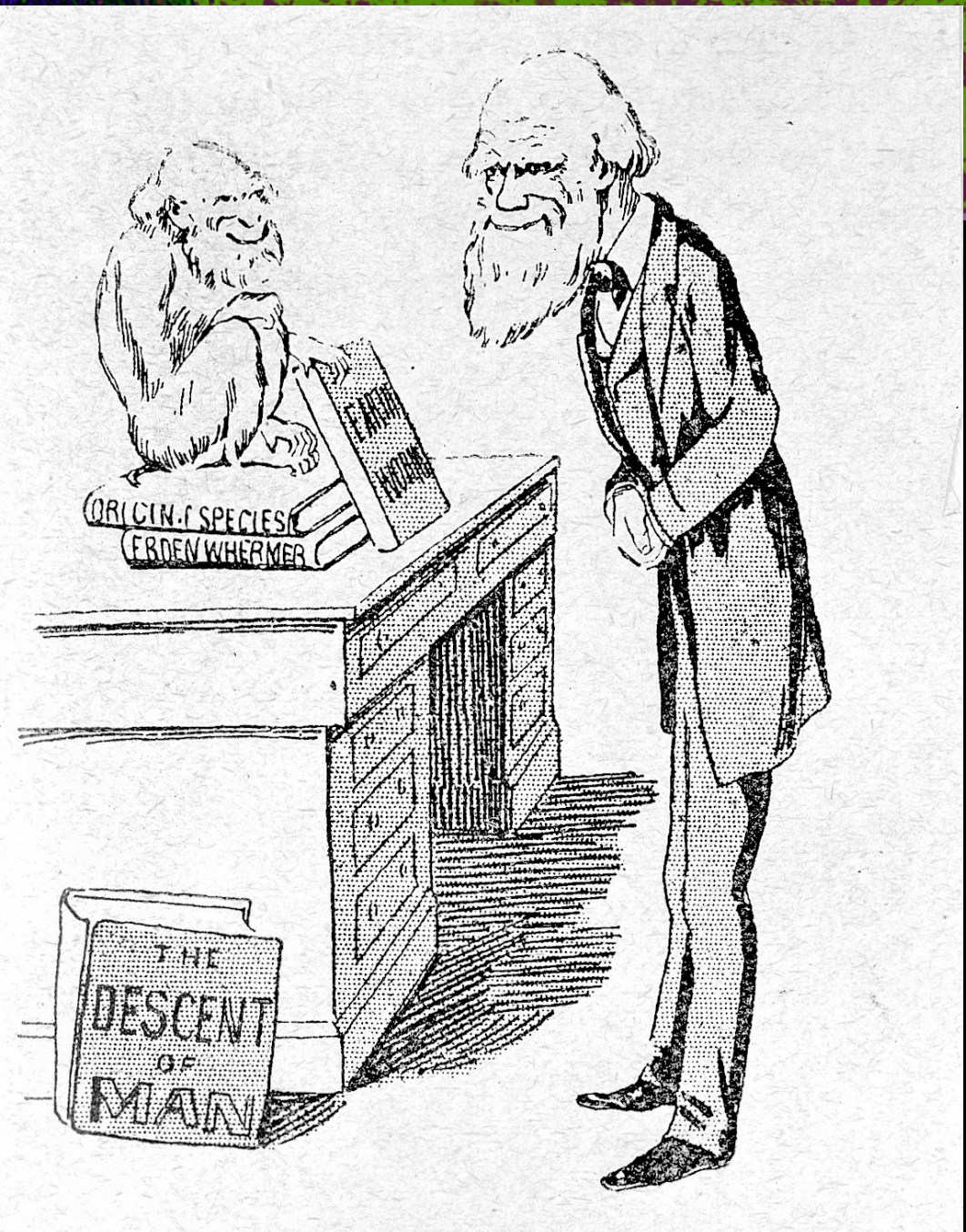
Darwin's Descent: 1

Jim Endersby

Why Darwin?



The funny side of Darwin?





Marry, or not?

Marry, or not?

After the Beagle

Darwin travelled for five years (1831–1836). A couple of years later, he was thinking about getting married.



“Not Marry”

“Freedom to go where one liked”

“choice of Society & little of it”

“Conversation of clever men at clubs”

“the expense & anxiety of children” (“less money for books &c”). If “many children” “forced to gain one’s bread”

“perhaps my wife wont [sic] like London”? “then the sentence is banishment & degradation into indolent, idle fool”.

“Marry”

“Home, & someone to take care of house”

“Charms of music & female chit-chat” (“These things good for one’s health”)

“Constant companion, (& friend in old age) who will feel interested in one, — object to be beloved & played with.

—better than a dog anyhow”

Work finished 210.8:1
If not marry

Travel. Europe, yes?

My God, it is intolerable to think of spending ones whole life, like a neuter bee, working, working, & nothing after all. — No, no won't do. — Imagine living all one's day solitarily in smoky dirty London House. — Only picture to yourself a nice soft wife on a sofa with good fire, & books & music perhaps — Compare this vision with the dingy reality of Great Marlborough St.

Marry — Marry — Marry Q.E.D.

Work finished

If marry — means limits, feel duty to work for money.

but being, no

But better

than near London

like a prisoner? If I were moderately rich I would live in London with just my house & so

If I travel it
United States
Depend upon
a how far I be

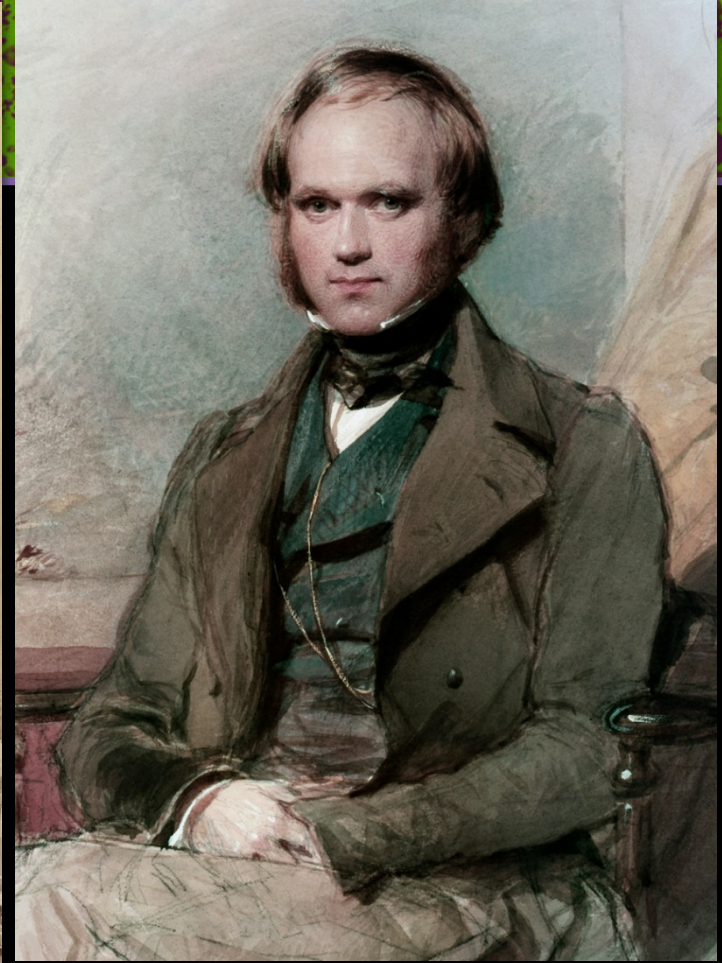
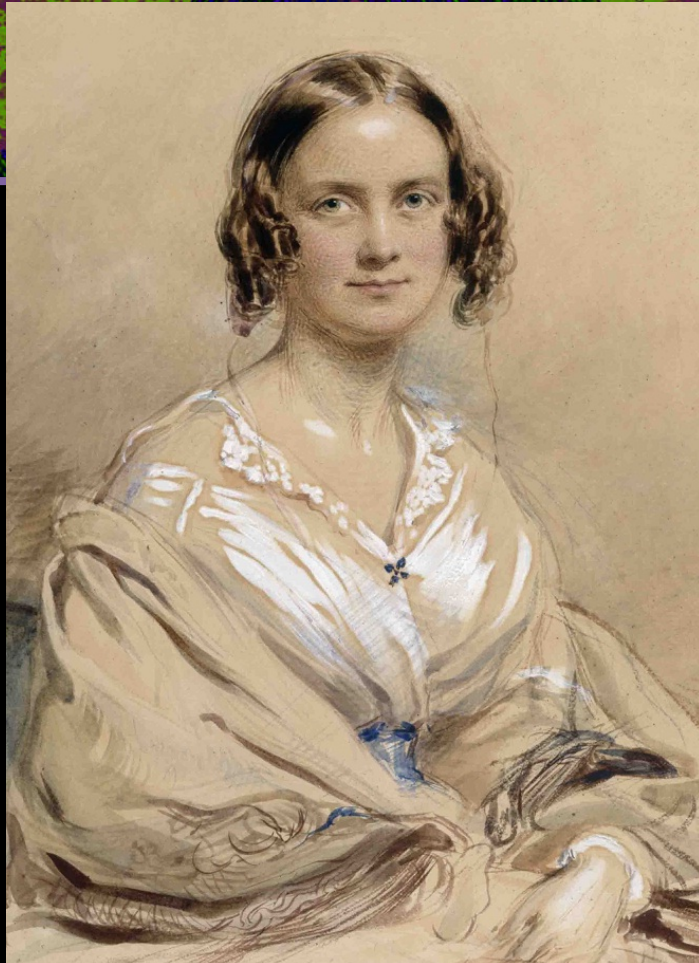
If I don't travel
travelling & spend
myself from life — biology. What
formations?? — Some experiments — psychology
Preservation — on how one meets

Marry, or not?

Marriage

Proposed to his
cousin, Emma
Wedgwood, on 11th
November 1838.

Noted in his journal, it
was “The day of
days!” because she
had accepted him.



210.8:1

If man



g
no
Mest
all
the
are?

not indently take county
- Charles I live in London

are a prisoners? If I were moderately
rich I would live in London, with party by hour & do
as (P) I (I) I act- the

Prescription on lower and mals
physiological

Marry, or not?

Separate spheres?

Assumption that men and women had supposedly natural roles.

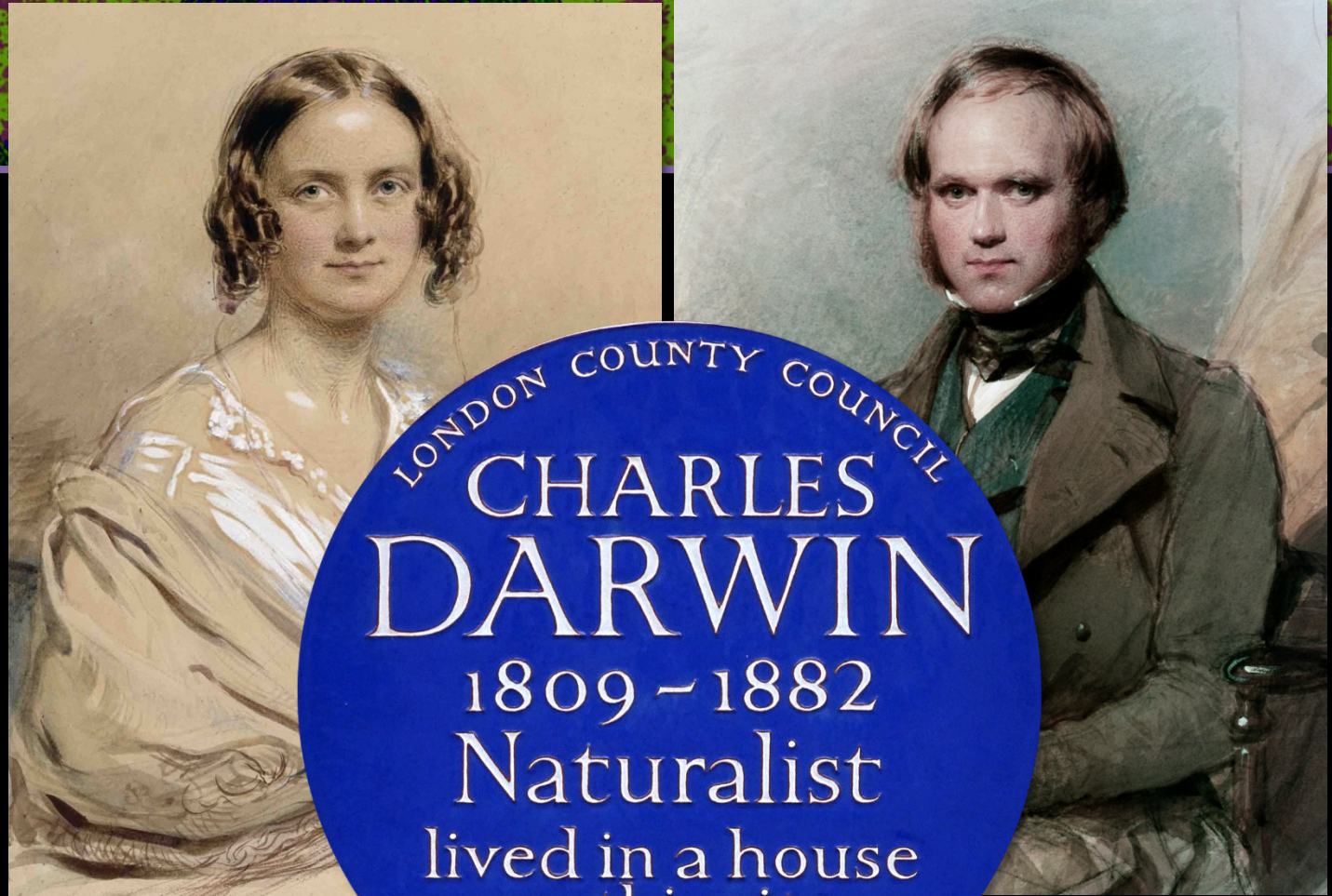
Image: George Elgar Hicks “The Sinews of Old England” (1857).



Marry, or not?

Marriage

Married 29 January 1839. Charles and Emma lived together on Gower Street, London (where University College, London now has lecture theatres).



LONDON COUNTY COUNCIL
CHARLES
DARWIN

1809 - 1882

Naturalist

lived in a house
on this site
1838 - 1842

Marry, or not?

Settling Down

Growing family left London in September 1842. Moved to Down House, in the village of Downe in Kent.



Marry, or not?

“Banishment”?

Did Darwin become an
“idle, indolent fool”?





BLU
NION
YEARLY

OSBY'S
SAMIC
OUGH
IXIR

OSBY
RBORO

MILLION
Job
News


ILLY
NEWS
LD-WIDE
CULATION

The
**AMERICAN
WATCH
COMPANY.**
WALTHAM,
Massachusetts USA
Manufacture over one
hundred thousand
watches annually and
sell of most excellent
Quality.
They are made both as
key-winders & stem-wind
sets of six different sizes
& of various grades.
A ADDRESS
AMERICAN WATCH CO
16 HATTON GARDEN LONDON

MOORE
AND
BURGES
MINISTERS
JAMES HALL

EVERY DISEASE
OF THE EYE
CURED BY
EDES
PATENT
AMERICAN
EYE LIQUID
2/9 & 4/6 P. bottle
BIRMINGHAM.

FRADLE
& MARSHALL
Photographers
REGENT ST.

ALLAN
ROYAL
MAIL STEAMERS

Canada
AND
UNITED STATES
PASSAGE £3.

COOK'S
TOURS.
CHIEF OFFICE
LUDGATE CIRCUS

WATCHES
& CLOCKS

John Bennetts
64 & 65
CHEAPSIDE
E.C.

The
ECHO
Catherine Street Strand

DR ROOKES
ANTI-LANCET
GRATIS.
OF ALL CHEMISTS
DR ROOKE SCARBORO

PRESSE & LUBIN
POPONAX
The Flower King.
New Bond St.
LONDON W.

THE
PRO-RATA PRINCIPLE
Spiers Pond.

**CHEQUE
BANK
CHEQUES**
RECEIVED HERE.

EMANUEL
DIAMOND & PEARL
MERCHANT,
AND
SILVERSMITH
TO THE
QUEEN & PRINCE OF WALES
27, OLD BOND STREET.

18
MR. STREETER
18, NEW BOND ST.
LONDON, W.
MANUFACTURER
OF
18 1/2
CARAT GOLD
AND
GEM JEWELLERY.
Illustrated Catalogues
TWO STAMPS.

THE PICTURESQUE
COSTUMES OF
SCOTLAND
AS WORN BY THE
ROYAL PRINCES
Kilt Suits for fishing & shooting.
Full Dress for Evening wear.
BOYS HIGHLAND DRESSES.
WATER PROOF
OVERCOATS FOR DEER STALKING.
JOHN T. W. GOODMAN, TAILOR
5 LITTLE ARCADE STREET ST.

**FELTONE
AND
SONS.**
**PECIALITE
CHERRY.**
FREE FROM ACIDITY OR HEAT.
SOLE IMPORTERS,
30%
CONDUIT STREET, LONDON,
MANCHESTER & BRIGHTON.

WHELPTONS VEGETABLE
TRADE MARK.
PURIFYING PILLS.
THE GREAT
FAMILY MEDICINE
OF THE AGE.

KEATING'S
TRADE MARK.
COUGH
LOZENGES
BEST & SAFEST REMEDY
OF ALL CHEMISTS.
BOXES 1/1 1/2 AND 2/9.

CV
36 1/2
C
I
CHAP
CUR
M

GODDALL'S
QUININE WINE

JUDY
2d
PRICE WEEKLY

YORKSHIRE RELISH
6 1/2 & 2 1/2 Bottles
BEST IN LONDON

THE PALL MALL
GAZETTE.
AN EVENING
NEWSPAPER
AND REVIEW

GODDALL'S
BAKING POWDER
THE BEST PENNY
PACKET IN THE WORLD.

**DAILY
TELEGRAPH**
LARGEST
CIRCULATION
IN THE WORLD.

DR J. COLLIS BROWNE'S
CHLORODYNE

COOK'S
LEADING
SAUCE
CR S

ESTABLISHED
BILLIARDS A.D. 1814.
MANUFACTURED BY
THURSTON & CO.
CATHERINE ST. STRAND,
LONDON.
Agents for THE SILBER LIGHT.

NORTHWOOLWICH GARDEN
BARMAID CONTEST.
W. HOLLAND, THE PEOPLES CATERER

**OCEAN, RAILWAY, & GENERAL
TRAVELLERS'
ASSURANCE COMPANY,**
LIMITED.
INSURANCE AGAINST ALL KINDS OF ACCIDENTS
BY LAND AND SEA.
HEAD OFFICES
MANSION HOUSE BUILDING
(OPPOSITE THE MANSION HOUSE)
LONDON, E.C.

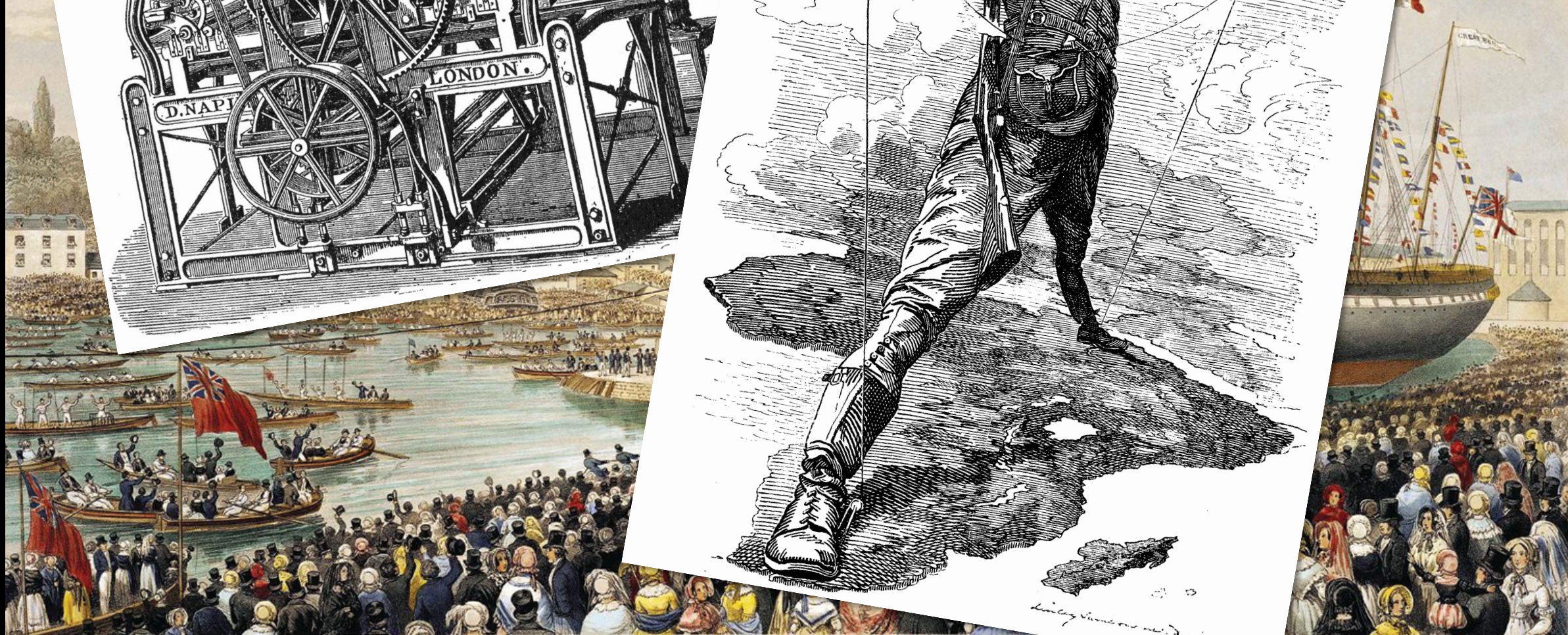
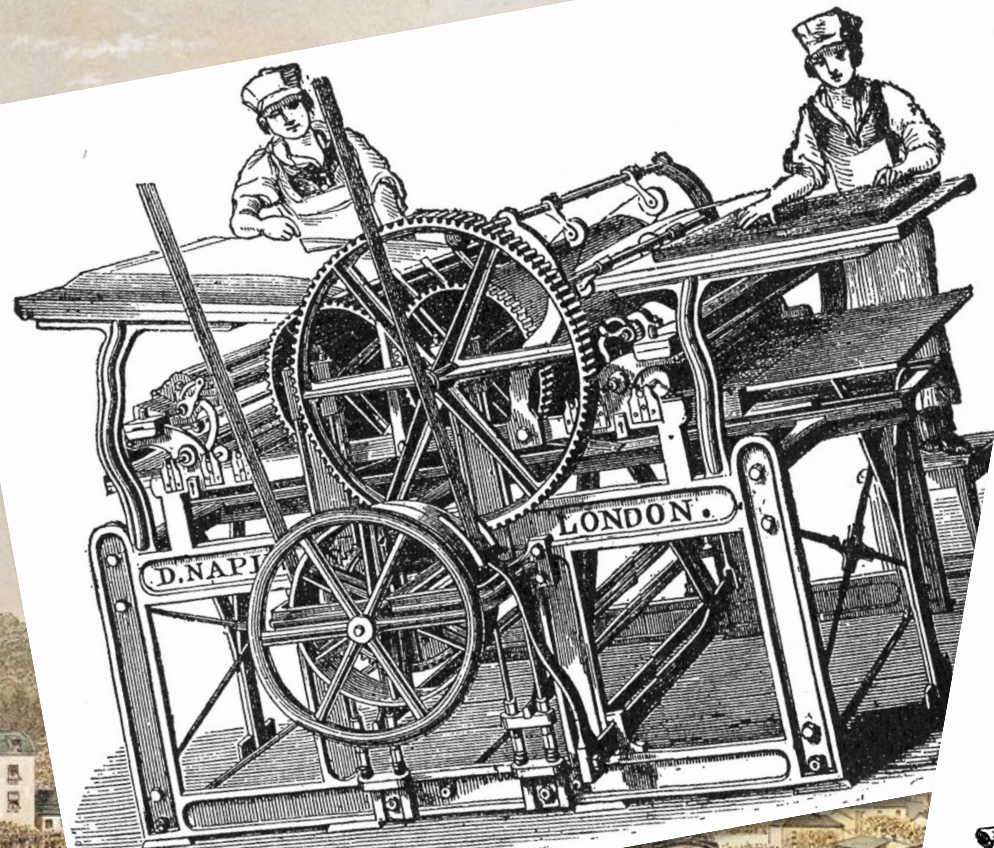
LAMPLOUGH'S PYRETIC & SALINE IS PLEASANT & CURES
SICKNESS, BILIOUSNESS & SKIN AFFECTIONS

JOHN BRINSMEAD & SONS
ON THE **GOLD MEDAL**
THREE YEARS SYSTEM.
18, WIGMORE ST.
LONDON, W.
PIANOS

BURGLAR-PROOF SAFES
FIRE-RESISTING SAFES
CHATWOOD
Is the only maker of Safes who allows Thirty-
any kind of Burglar's appliances before
120, CANNON STREET, LO

W.H. SMITH & SON
186, STRAND.

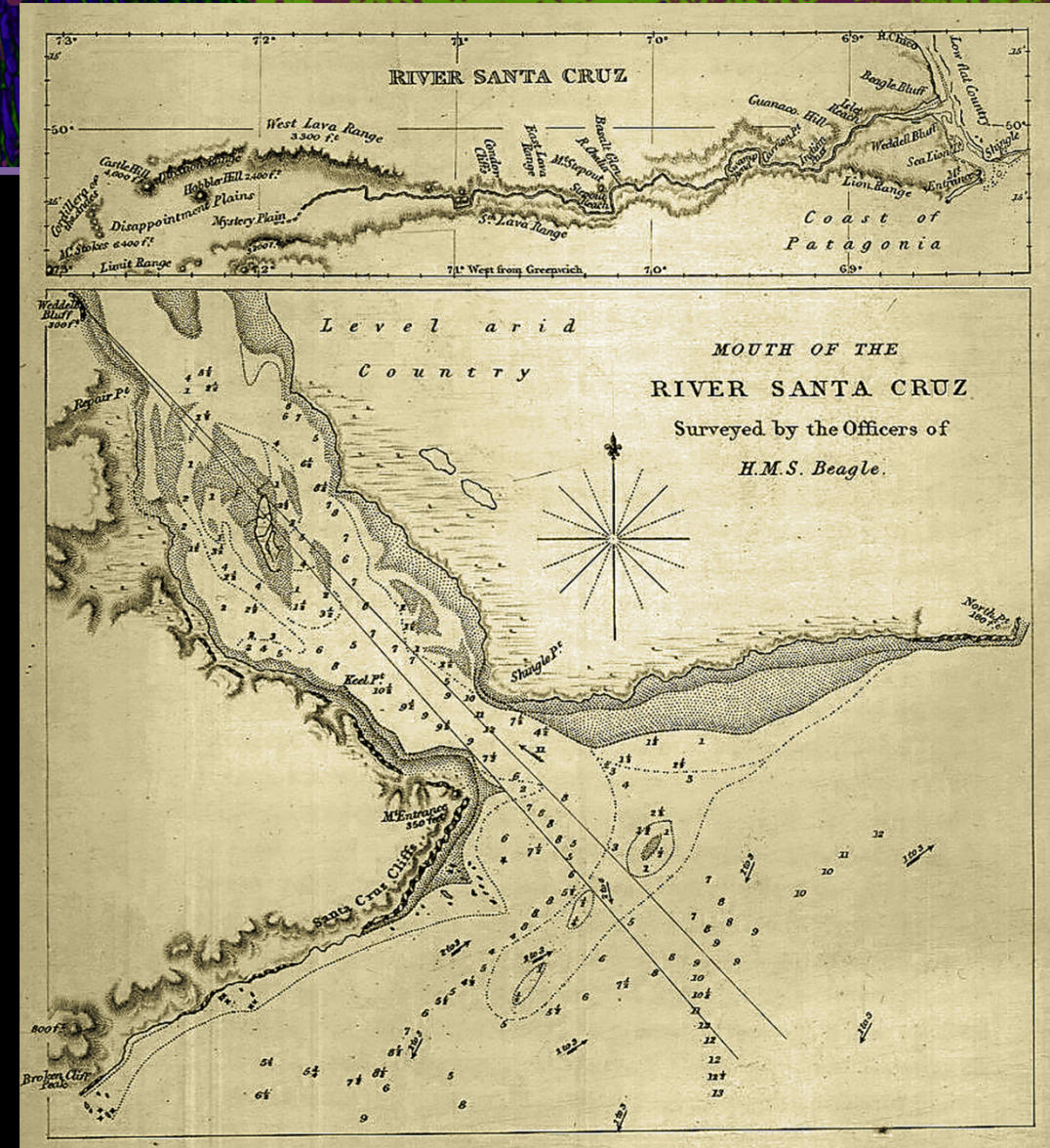




Marry, or not?

HMS Beagle

British naval surveying vessel.
Commerce, not science, was its main mission.



Marry, or not?

“Banishment”?

Thanks to the global postal service, Darwin was never out of touch with the world.

28

Kew Thursday
June 65

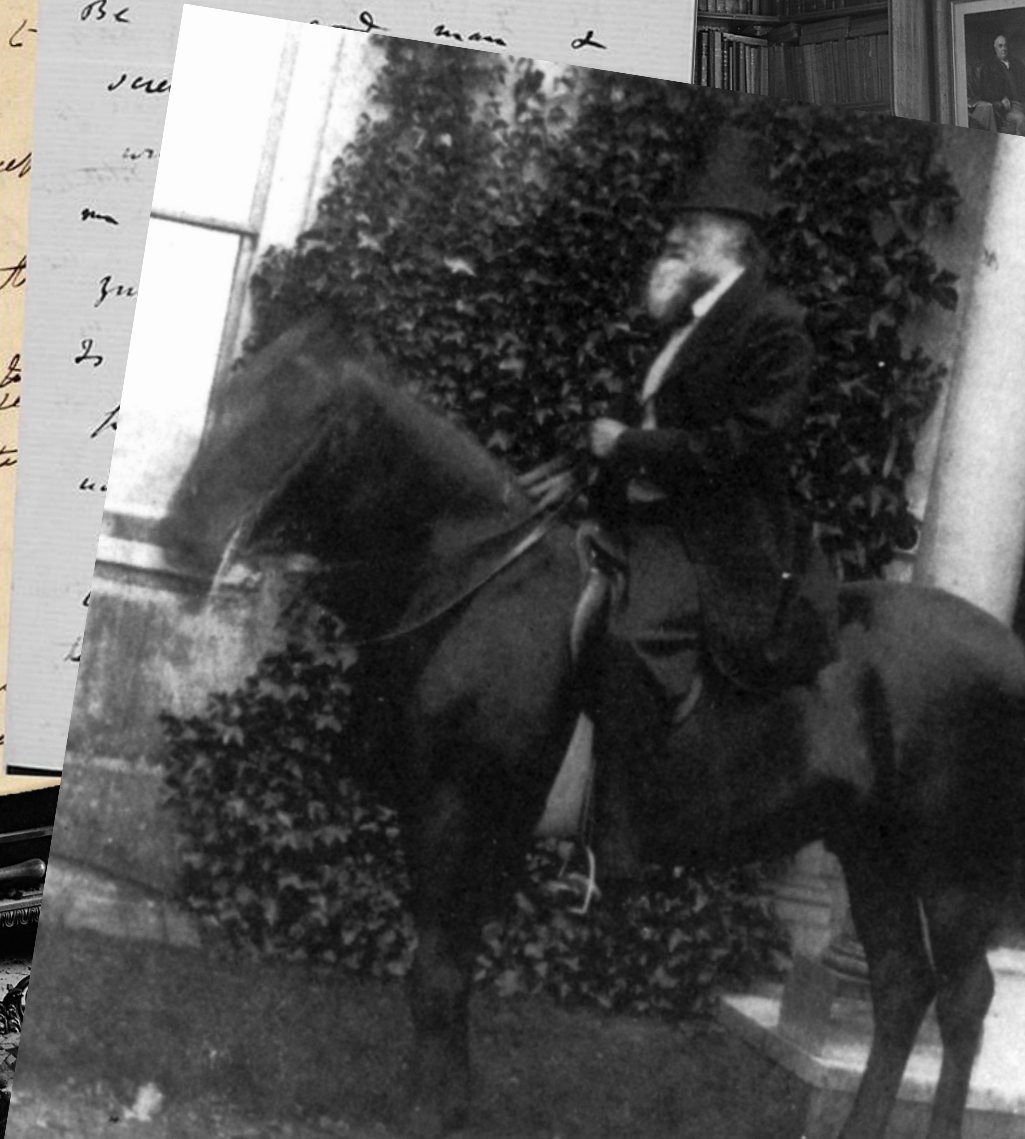
Mr Darwin
I am wonderfully taken
with your book & anxious to
know your opinion of it -
which seems to me quite
- really good -
I have accumulated notes
from nearly a month this
Scottish affair, which I
have a perfect appreciation
of the
I have just begun
chapters.
My wife does not
fear; & still comple

29

Oct 15th / 59. Wally Jenace
Jik leg
Ol-leg
Jyn Kibier

My dear Wally

Be
see
in
me
In
2
u
L



Marry, or not?

Darwin's letters

Darwin Correspondence Project
(University of Cambridge)

<https://www.darwinproject.ac.uk/>

Darwin Correspondence Project

Search over 9000 letters and articles...

Search

[advanced search >](#)

Meet the correspondents



Bartholomew James Sullivan



Virginia Isitt: Darwin's secretary?



Fritz Müller



Orundellico (Jemmy Button)



George Robert Waterhouse



Alexander von Humboldt



Frances Power Cobbe



George Eliot (Mary Ann Evans)



> Darwin and working from home

Ever wondered how Darwin worked? To celebrate Darwin's 211th birthday we are launching For the Curious, a series of simple interactives that explore different areas of Darwin's life, work and legacy through his letters.

We start with 'Darwin working from home', in which you can explore objects from Darwin's study and garden at Down House to learn how he worked and what he had to say about it. Not all his work days were successful, here are some letters about [Darwin's bad days](#).

> Darwin's works in letters



Read and search the full texts of more than 9,000 of Charles Darwin's letters and find information on 6,000 more. Discover complete transcripts of all known letters Darwin wrote and received up to the year 1876.

DARWIN FOR SCHOOLS

The Beagle Voyage Route

Discover our new and improved school resources for 11-14 year olds.

[Visit the schools section](#)

Darwin's letters: a timeline

Explore the letters to and from Charles Darwin over time

Marry, or not?

Beagle specimens

Darwin's collections sent to various specialists for technical description and classification.

But some stayed with Darwin, including an odd barnacle he nicknamed "Mr. Arthrobalanus".



595.
D 25

A MONOGRAPH

ON THE SUB-CLASS

CIRRIPEDIA,

WITH

FIGURES OF ALL THE SPECIES.

BY

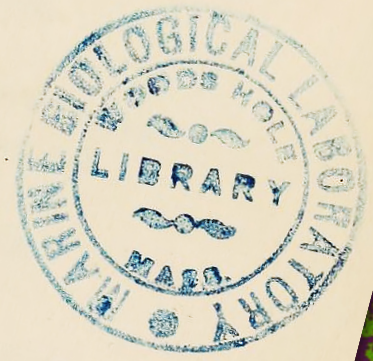
CHARLES DARWIN, F.R.S., F.G.S.

THE BALANIDÆ,

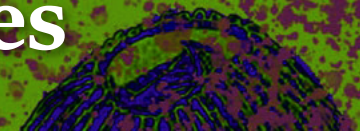
(OR SESSILE CIRRIPEDES);

THE VERRUCIDÆ,

ETC., ETC., ETC.



Barnacles



Barnacles

“where does your
daddy do his
barnacles?”



Barnacles

Separate spheres
(again)



Barnacles

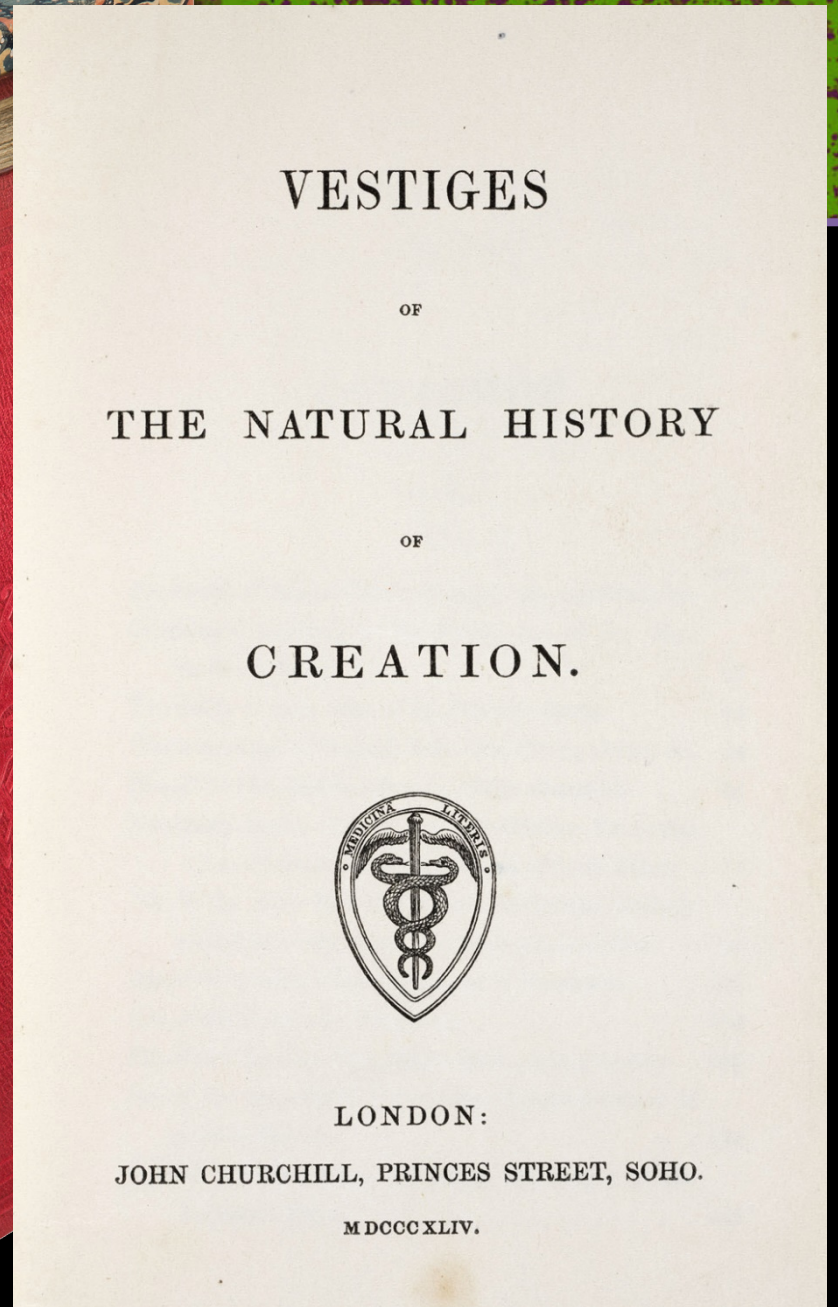
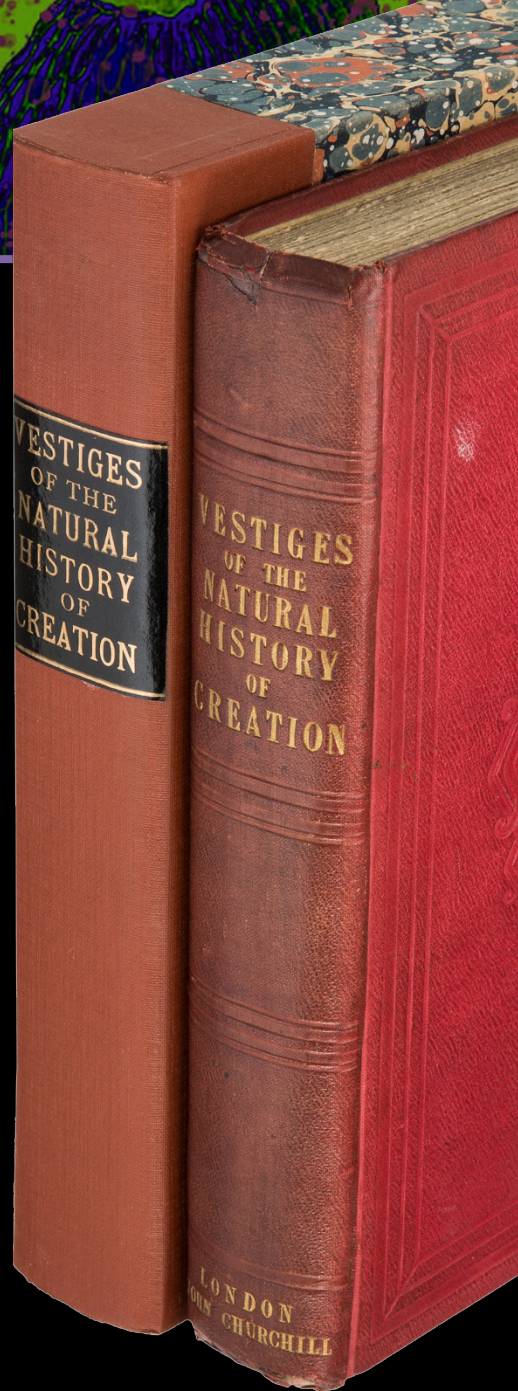
**A world without
“scientists”**



Barnacles

Vestiges of controversy

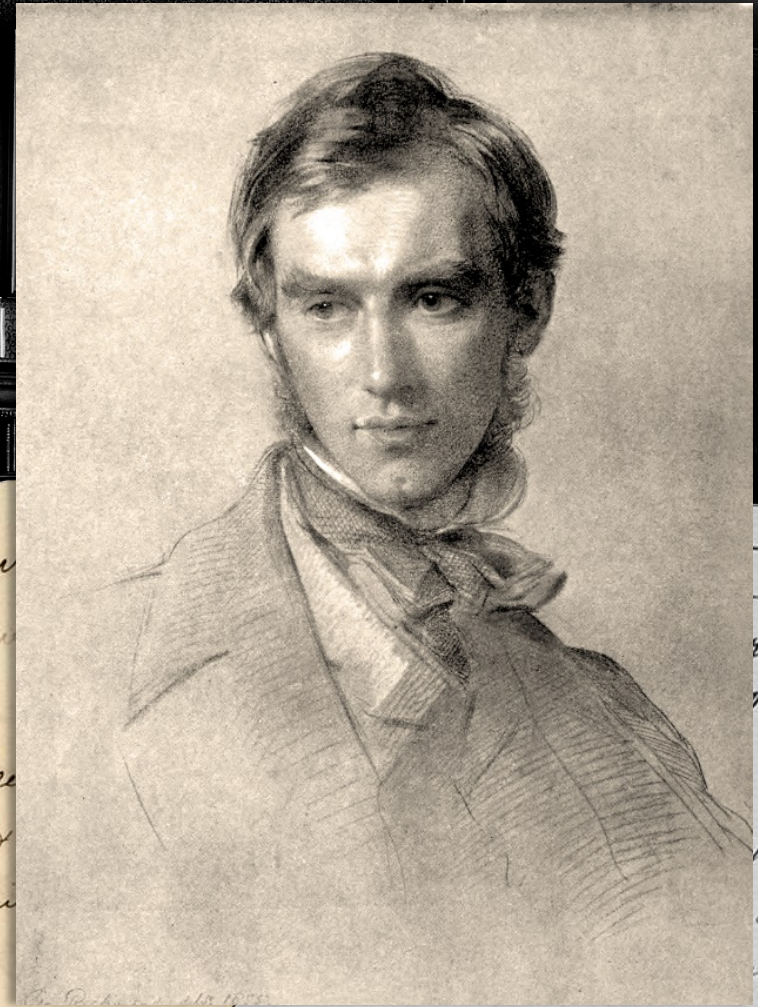
1844: *The Vestiges of the Natural History of Creation*, creates a sensation, becoming Britain's best selling book on evolution (for many decades).



Barnacles

A world without “scientists”

Joseph Dalton Hooker
(later director of
Kew).



Dear Mr Darwin
I am writing
to you about
the book of
mine which
I have written
on the
subject of
the
origin of
species
I have written
it in a
very simple
manner
and I hope
it will be
read with
interest
by all
who are
interested
in the
subject
I have written
it in a
very simple
manner
and I hope
it will be
read with
interest
by all
who are
interested
in the
subject

23
Hooker
&
to
& the
manuscript

Your friends & belongings.
Is your Introduction fairly
finished? I know that you
will alter it, but I know
well how much I shall
like it. I have been

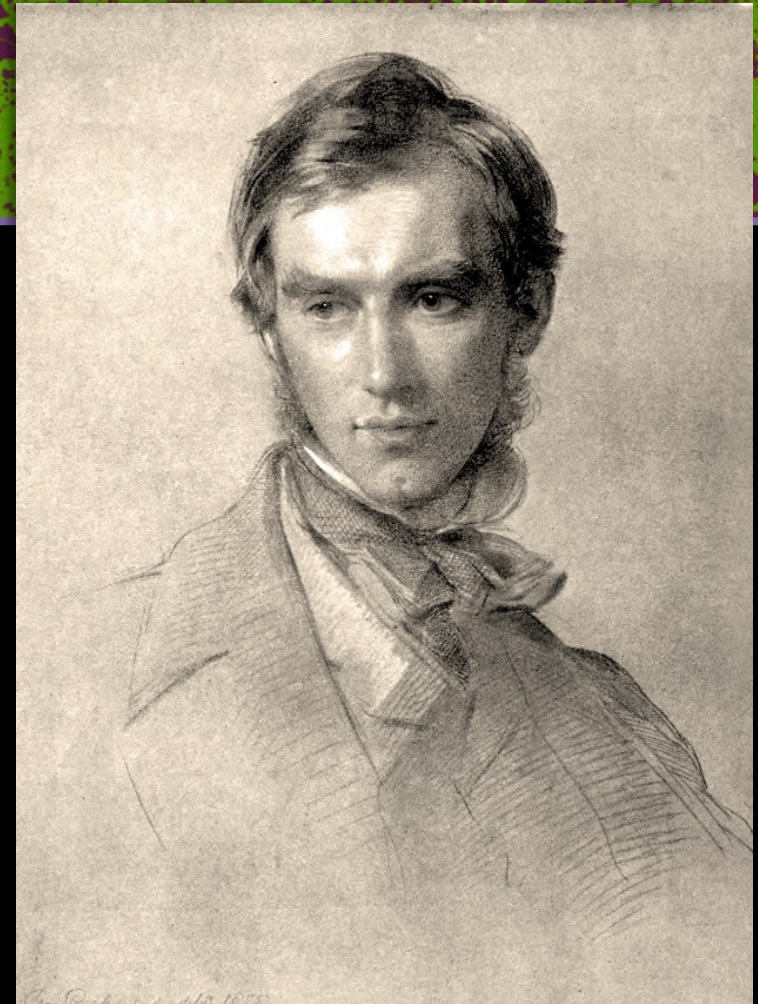
Barnacles

Darwin and Hooker (1845)

Discussed another rather speculative tract about species (by Frédéric Gérard).

Hooker unimpressed: Gérard was “neither a specific naturalist, nor a collector, nor a traveller” and therefore merely “a distorter of facts.”

To write on species a man “must have handled hundreds of species with a view to distinguishing them & that over a great part,—or brought from a great many parts,—of the globe.”



Barnacles

Darwin and Hooker (1845)

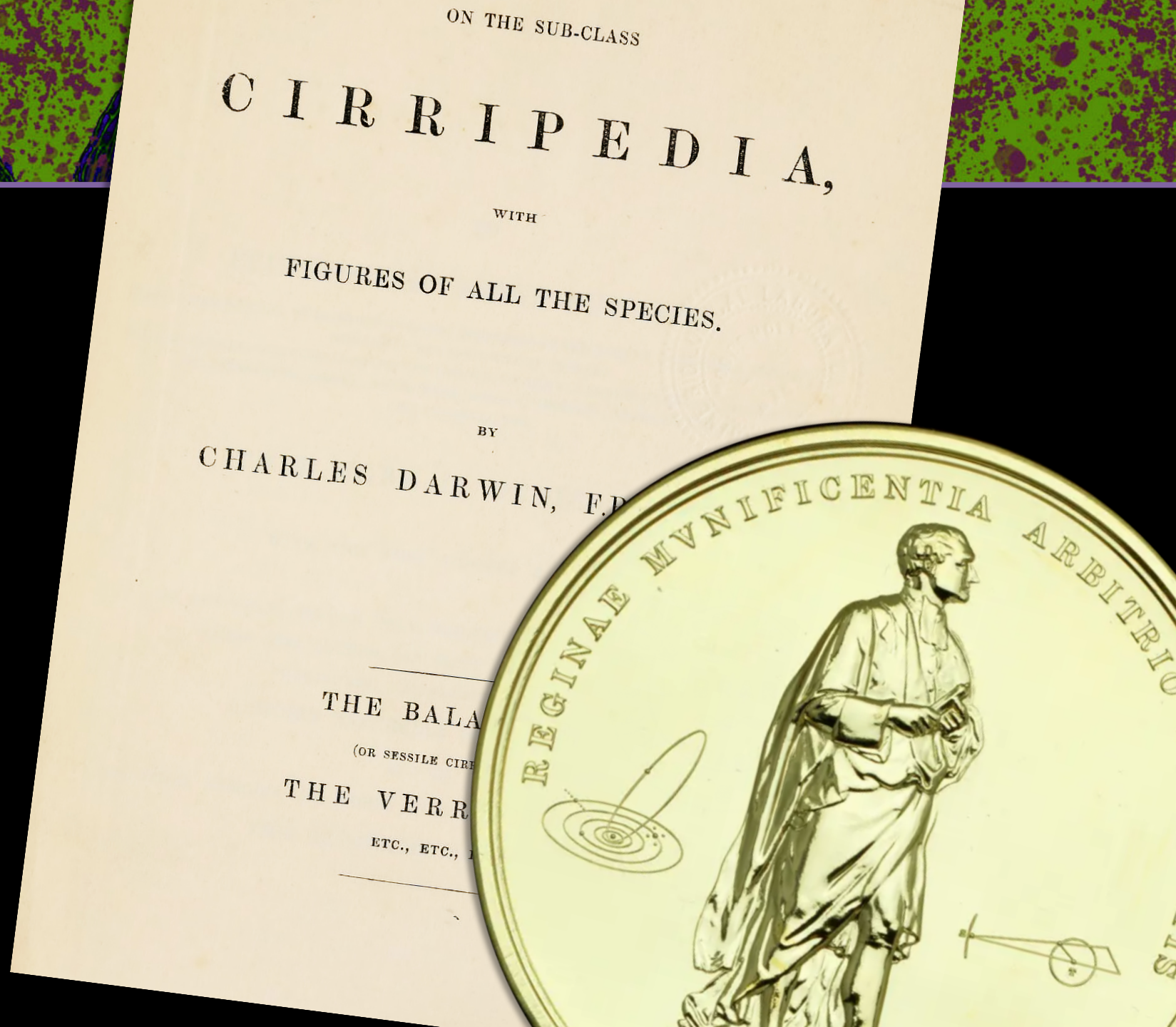
Darwin: “How painfully (to me) true is your remark that no one has hardly a right to examine the question of species who has not minutely described many”.



Barnacles

Man of Science

Royal Society of London awarded Darwin their prestigious Royal Medal in 1853, in recognition of his barnacle work.

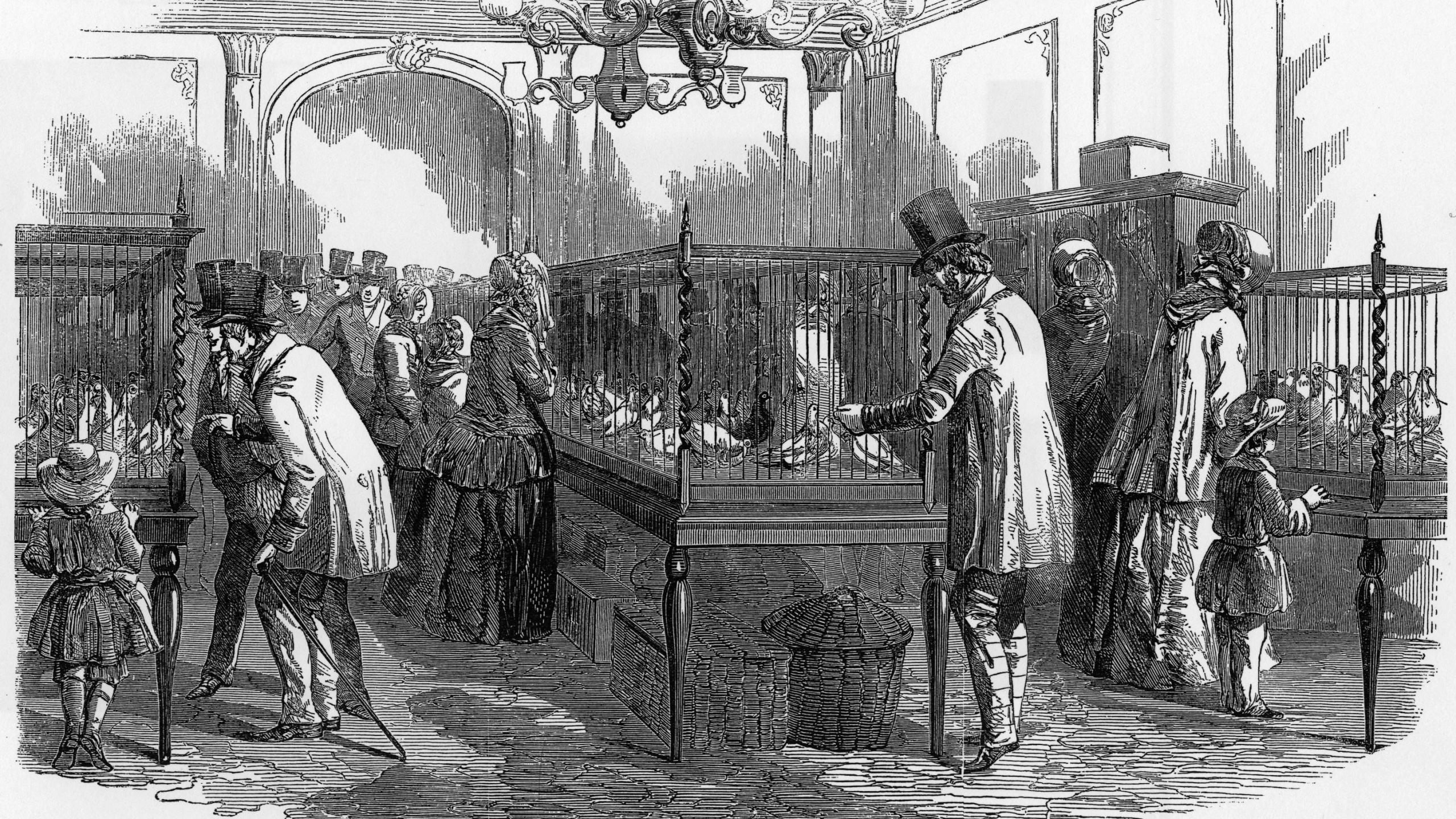


Barnacles

Understanding sex

Darwin had a lifelong interest in animal- and plant-breeding. Used information from breeders (and kept his own pigeons) to test his ideas.

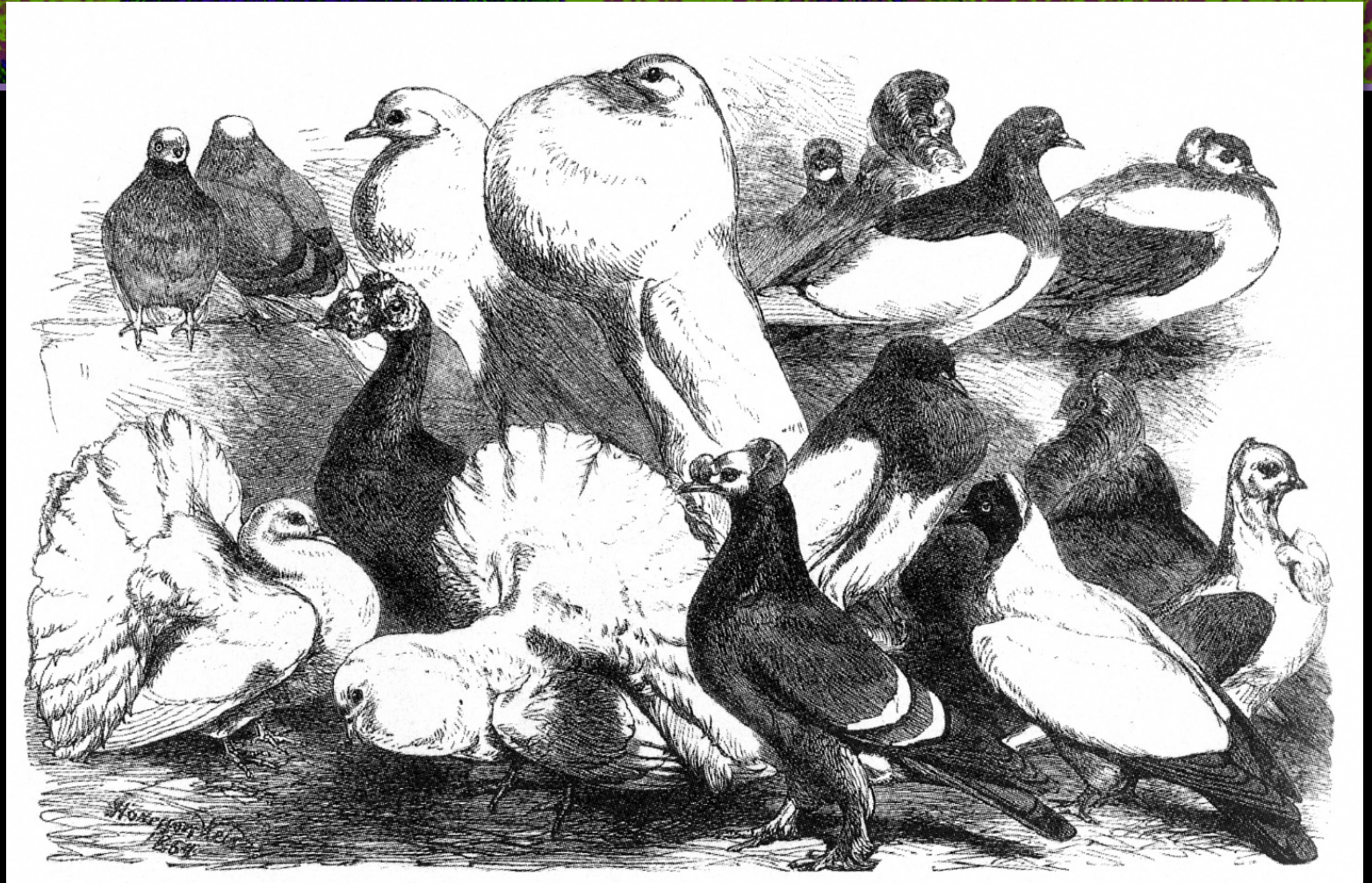




Barnacles

Understanding sex

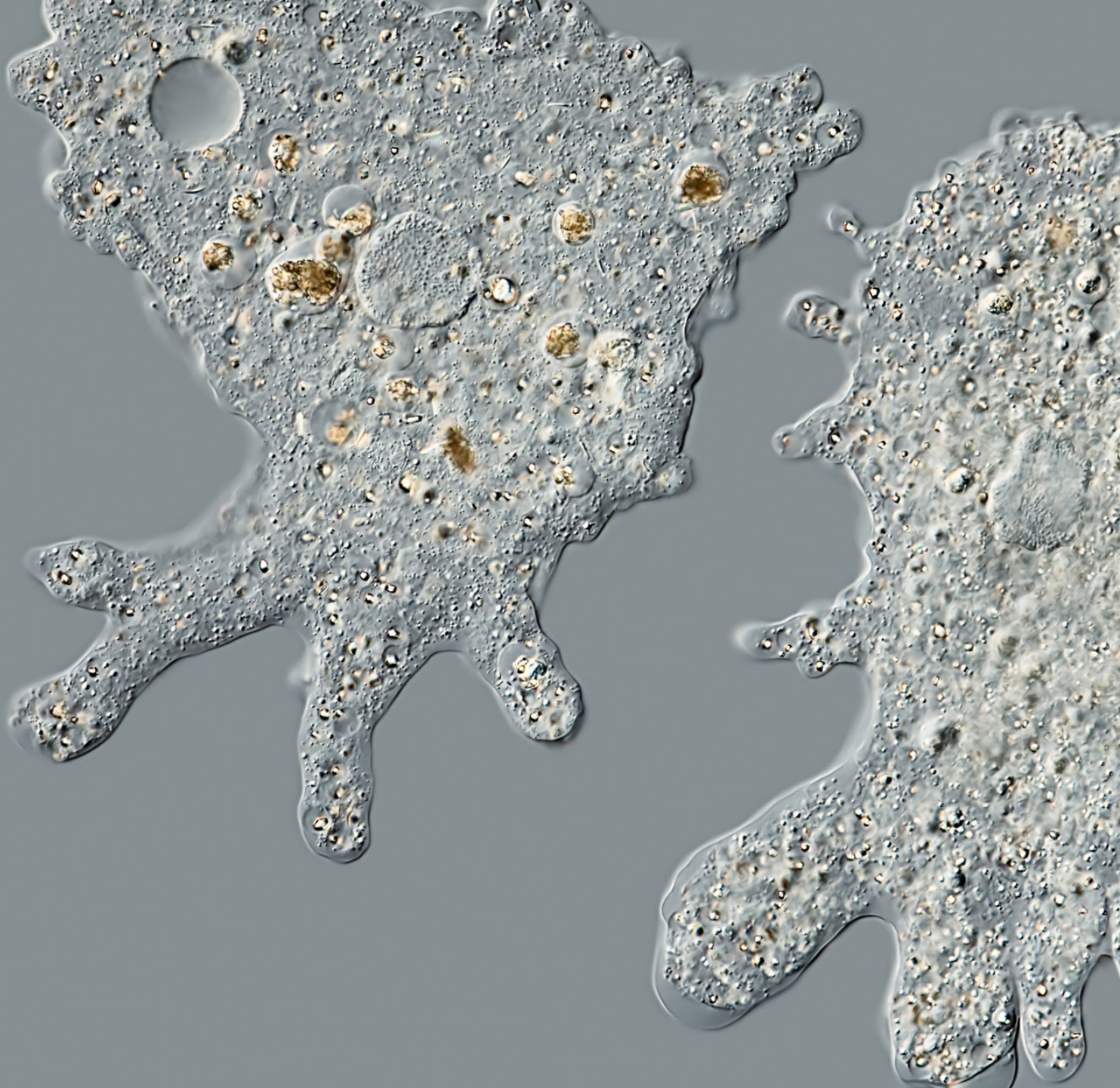
Breeding was “artificial selection” (model for natural selection).



Barnacles

Why did sex evolve?

What's wrong with asexual reproduction?





Barnacles

Why did sex evolve?

What's wrong with asexual reproduction?

Dutch Elm disease: 25 million British elm trees died in the 1970s.

In 2004, geneticists confirmed what had long been suspected: that all Britain's elms were clones of a single tree.



Barnacles

The “good of the species”?

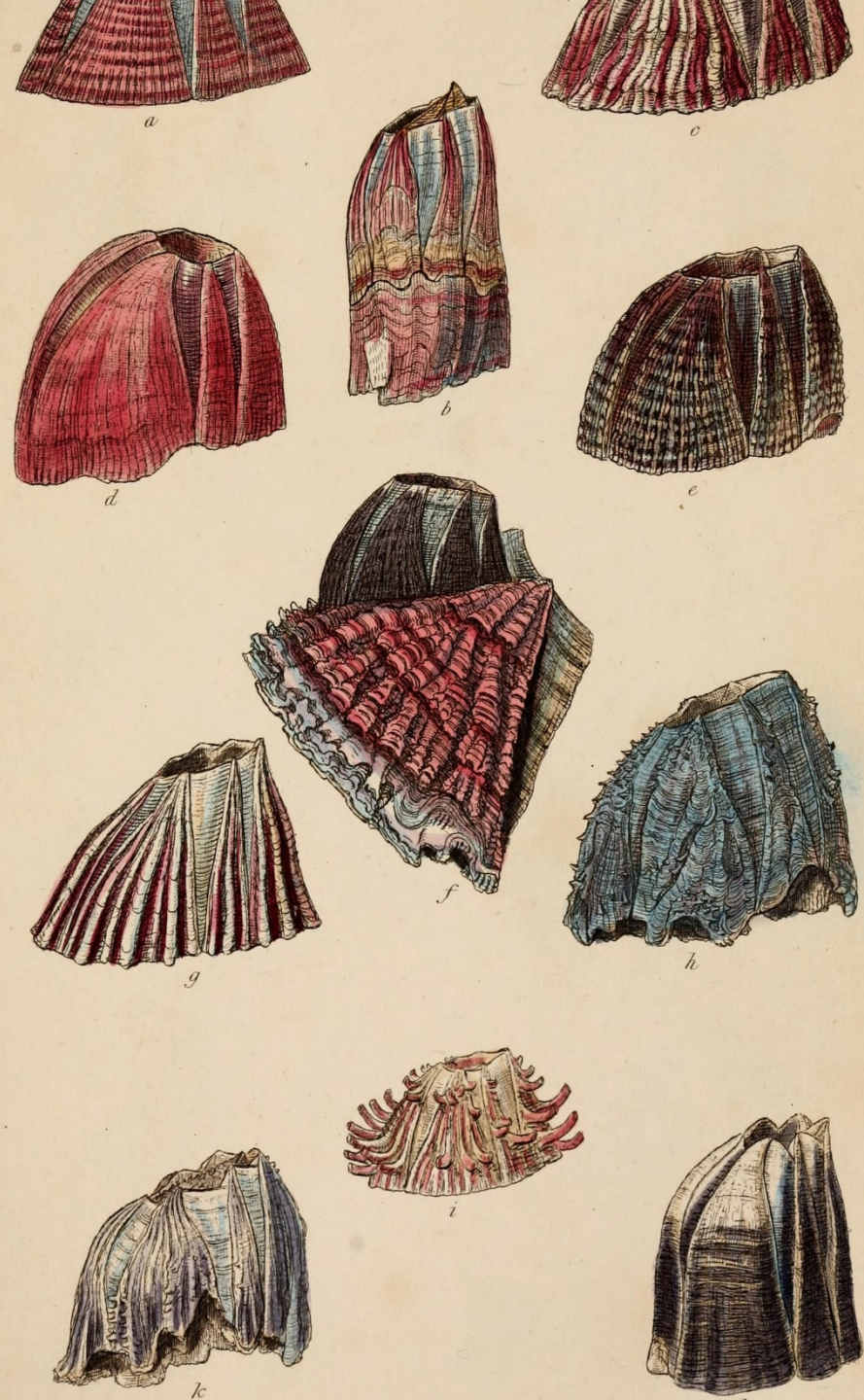
Sex increases variability, giving natural selection more raw material to select from.



Barnacles

Hints from barnacles

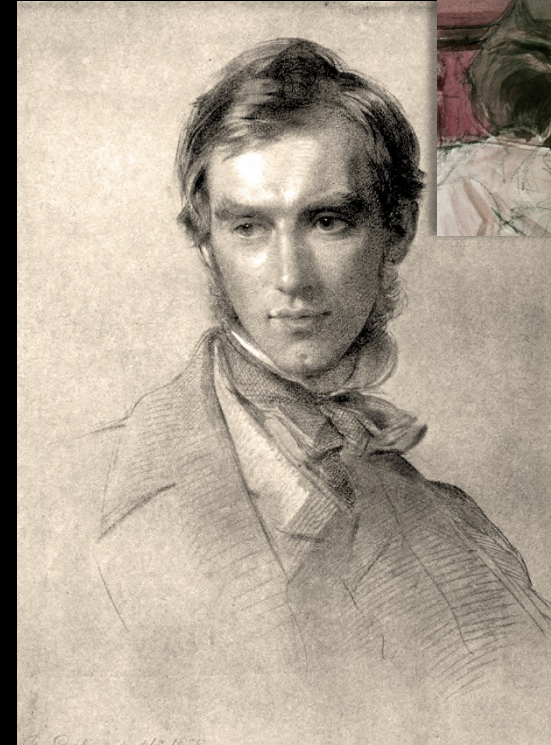
Some species hermaphroditic (both sets of sexual organs), others bisexual (separate species).



Barnacles

Darwin to Hooker (1848)

“I have lately got a bisexual cirripede, the male being microscopically small & parasitic within the sack of the female; I tell you this to boast of my species theory, for the nearest & closely allied genus to it is, as usual, hermaphrodite, but I had observed some minute parasites adhering to it, & these parasites, I now can show, are supplemental males, the male organs in the hermaphrodite being unusually small, though perfect & containing zoosperms.

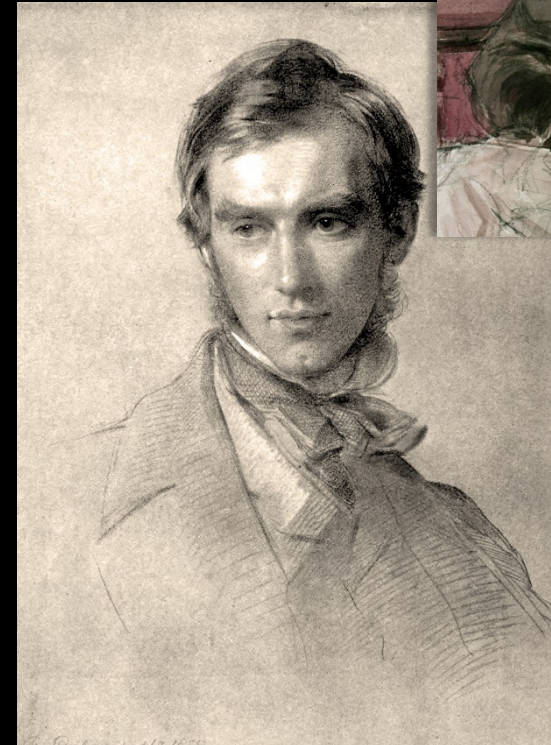


Barnacles

Darwin to Hooker (1848)

“I never shd. have made this out, had not my species theory convinced me, that an hermaphrodite species must pass into a bisexual species by insensibly small stages”.

Darwin wryly observed that Hooker might “perhaps wish my Barnacles & Species theory al Diabolo [to the devil] together. But I don’t care what you say, my species theory is all gospel”.



Barnacles

A working theory

In his “Recollections of the development of my mind & character”, Darwin commented that after reading Malthus, he “had at last got a theory by which to work”.

The barnacle work persuaded *Darwin* he was on the right track, just as much as it persuaded others that he knew what he was talking about.



Barnacles

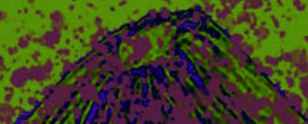
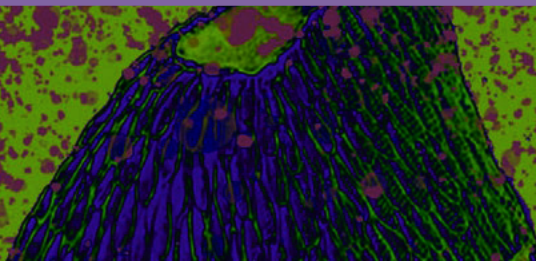
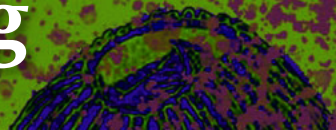
A working theory

Many of Darwin's later books demonstrated natural selection in action.





Breeding

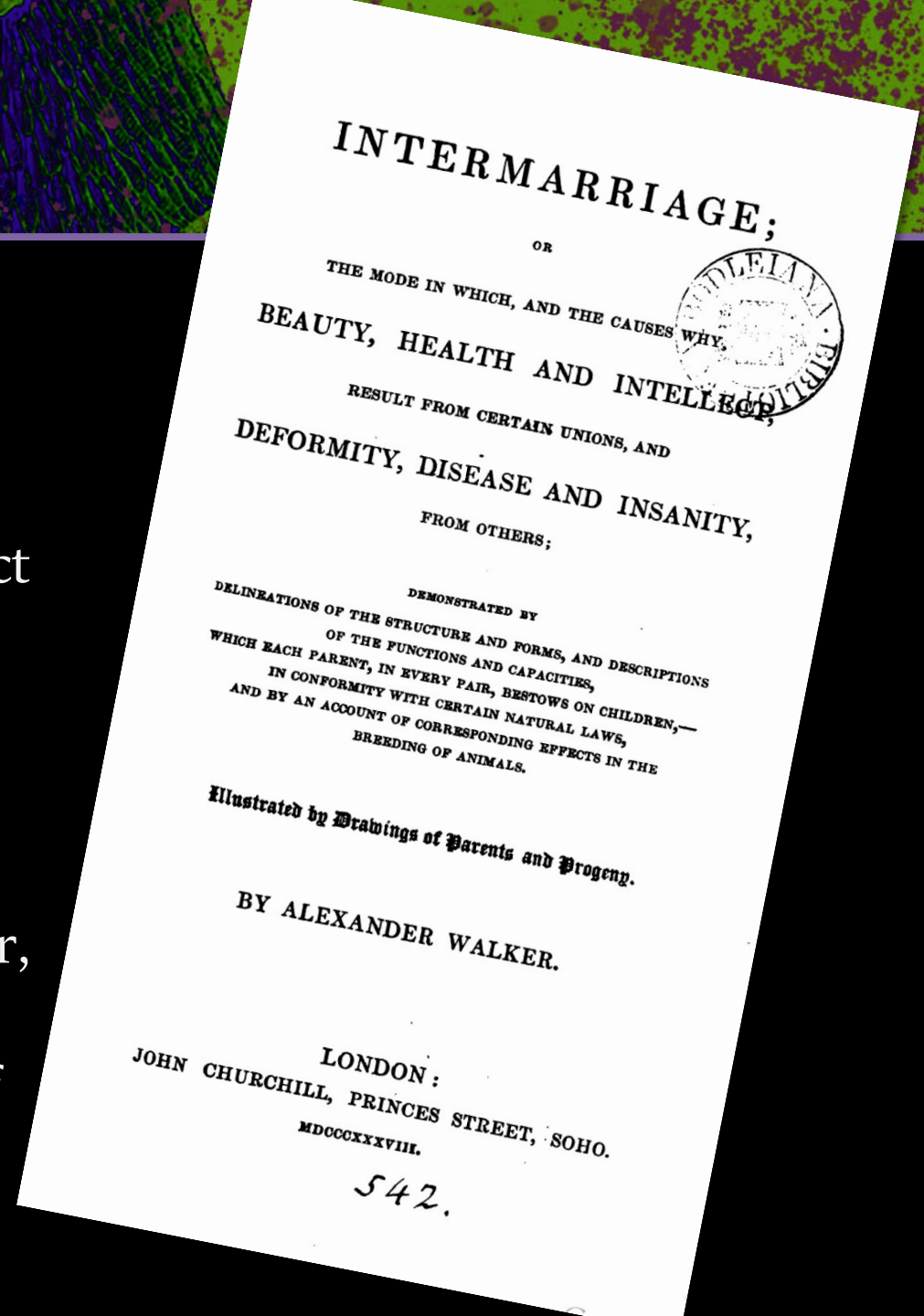


Breeding

Marry, or not?

Darwin read Alexander Walker's newly published book *Intermarriage* (1838): "How and why beauty, health, and intellect result from certain marriages, and deformity, disease, and insanity from others".

Walker explained "the functions and capacities which each parent, in every pair, bestows on children, in conformity with certain natural laws, and by an account of corresponding effects in the breeding of animals"



Breeding

Plant-breeding

Walker's book prompted Darwin to start breeding flowers, to see if in-breeding was harmful.



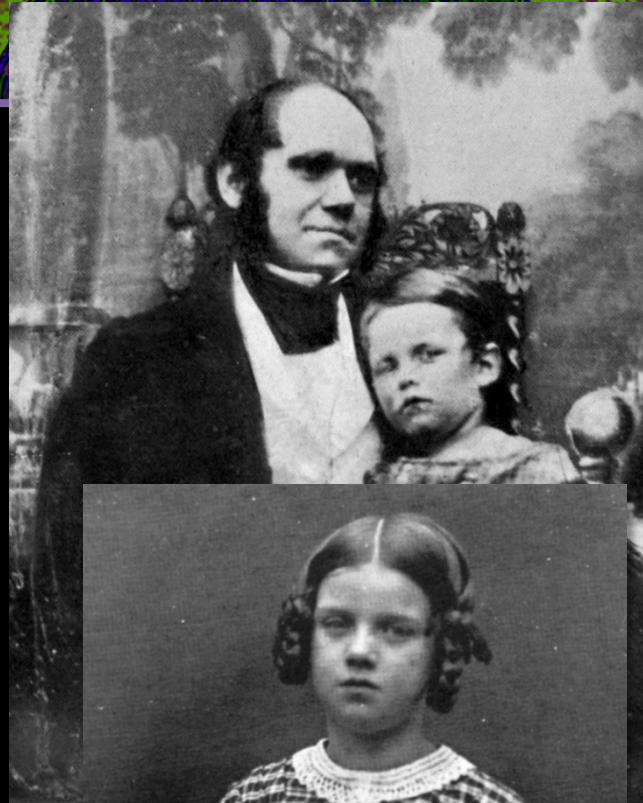
Breeding

Charles and Emma

1842: their third child, Mary, died just a few weeks after her birth.

1851: Annie died, just ten years old.

Their last child, Charles Waring, lived for less than two years.



Breeding

The consolations of evolution?

“When we reflect on this struggle, we may console ourselves with the full belief, that the war of nature is not incessant, that no fear is felt, that death is generally prompt, and that the vigorous, the healthy, and the happy survive and multiply”.

